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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,380	09/08/2003	Shinichi Anami	M894.312-0010	9396

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MINNEAPOLIS, MN 55415-1002

EXAMINER

RIELLEY, ELIZABETH A

ART UNIT PAPER NUMBER

2879

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/657,380

Applicant(s)

ANAMI ET AL.

Examiner

Elizabeth A. Rielley

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Amendment filed 9/22/05 has been entered and considered by the Examiner. Currently, claims 1-16 are pending in the instant application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Keijser et al (US 5153482).

In regard to claim 1, Keijser et al ('482) teaches an arc discharge metal halide lamp (figure 2; abstract) for use in selected lighting fixtures (figure 1), said lamp comprising: a discharge chamber having visible light permeable walls of a selected shape bounding a discharge region (see figure 1; column 3 line 16 to column 4 line 2) through which walls a pair of electrodes (2, 3) are supported in said discharge region spaced apart from one another by a distance L_e (Keijser = D) with said walls about said discharge region having an average diameter along L_e equal to D (Keijser = d_i) so as to satisfy $4 < L_e/D \leq 5$ (column 3 lines 41-50, lamp number 3); and ionizable materials provided in said discharge region of said discharge chamber comprising a noble gas, a sodium halide and mercury (column 3 lines 26-28) in an

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amount sufficiently small to result in a voltage drop between said electrodes during lamp operation that is less than 110 V rms at a selected value of electrical power dissipation in said lamp (column 3 lines 41-50, lamp number).

In regard to claim 2, Keijser et al ('482) teach the voltage drop between said electrodes during lamp operation exceeds 50 V rms (column 3 lines 41-50, lamp number).

In regard to claim 3, Keijser et al ('482) teach the discharge chamber is made of a ceramic material (column 3 lines 15-18).

In regard to claims 4 and 5, Keijser et al ('482) teach the selected value of electrical power dissipation divided by that surface area of said discharge chamber adjacent to said discharge region as a chamber wall loading is between 20 and 70 W/cm² (abstract).

In regard to claim 7, Keijser et al ('482) teach the voltage drop between said electrodes during lamp operation is between 50 and 100 V rms (column 3 lines 41-50, lamp number).

In regard to claim 8, Keijser et al ('482) teach the ceramic material is polycrystalline alumina (column 2 lines 21-46).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keijser et al (US 5153482) in view of Keijser et al (US 6300729).

In regard to claims 6 and 9, Keijser et al ('482) disclose all the limitations set forth, as described above, except the ionizable materials further comprise a cerium halide. Keijser et al ('729) teach an arc discharge metal halide lamp using a combination of a noble gas, a cerium halide, and a mercury gas (column 3 lines 5-12) in order to increase the light output (column 2 lines 39-49). Hence, it would have been obvious at the time of the invention to one of ordinary skill in the art to combine the arc lamp of Keijser et al ('482) with the ionizable materials of Keijser et al ('729). Motivation to combine would be to increase the light output.

In regard to claim 10, Keijser et al ('482) teach the voltage drop between said electrodes during lamp operation exceeds 50 V rms (column 3 lines 41-50, lamp number).

In regard to claim 11, Keijser et al ('482) teach the discharge chamber is made of a ceramic material (column 3 lines 15-18).

In regard to claims 12 and 13, Keijser et al ('482) teach the selected value of electrical power dissipation divided by that surface area of said discharge chamber adjacent to said discharge region as a chamber wall loading is between 20 and 70 W/cm² (abstract).

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In regard to claim 14, Keijser et al ('482) teach ionizable materials further comprise a sodium halide (column 3 lines 24-28).

In regard to claim 15, Keijser et al ('482) teach the voltage drop between said electrodes during lamp operation is between 50 and 100 V rms (column 3 lines 41-50, lamp number).

In regard to claim 16, Keijser et al ('482) teach the ceramic material is polycrystalline alumina (column 2 lines 21-46).

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

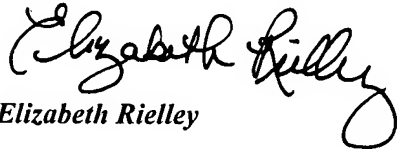
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth A. Rielley whose telephone number is 571-272-2117. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth Rielley

Examiner
Art Unit 2879

Mnge 12/2/05
MARICELI SANTIAGO
PRIMARY EXAMINER